



IFWO

## RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:26

Input Set : N:\CrF3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

1 <110> APPLICANT: ULLRICH, Axel  
 2 NAYLER, Oliver  
 3 <120> TITLE OF INVENTION: CLK PROTEIN KINASES AND RELATED PRODUCTS AND METHODS  
 4 <130> FILE REFERENCE: 038602/0431  
 5 <140> CURRENT APPLICATION NUMBER: US/10/825,177  
 6 <141> CURRENT FILING DATE: 2004-04-16  
 7 <150> PRIOR APPLICATION NUMBER: US/09/905,999  
 8 <151> PRIOR FILING DATE: 2001-07-17  
 9 <150> PRIOR APPLICATION NUMBER: 09/127,248  
 10 <151> PRIOR FILING DATE: 1999-07-31  
 11 <150> PRIOR APPLICATION NUMBER: PCT/IB97/00946  
 12 <151> PRIOR FILING DATE: 1997-06-17  
 13 <150> PRIOR APPLICATION NUMBER: US 08/877,150  
 14 <151> PRIOR FILING DATE: 1997-06-17  
 15 <150> PRIOR APPLICATION NUMBER: US 60/034,286  
 16 <151> PRIOR FILING DATE: 1996-12-19  
 17 <160> NUMBER OF SEQ ID NOS: 26  
 18 <170> SOFTWARE: PatentIn version 3.0  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 6  
 22 <212> TYPE: PRT  
 23 <213> ORGANISM: Mus musculus  
 24 <400> SEQUENCE: 1  
 25 Asp Leu Lys Pro. Glu Asn  
 26 1 5  
 28 <210> SEQ ID NO: 2  
 29 <211> LENGTH: 6  
 30 <212> TYPE: PRT  
 31 <213> ORGANISM: Mus musculus  
 32 <400> SEQUENCE: 2  
 33 Ala Met Met Glu Arg Ile  
 34 1 5  
 36 <210> SEQ ID NO: 3  
 37 <211> LENGTH: 28  
 38 <212> TYPE: DNA  
 39 <213> ORGANISM: Mus musculus  
 40 <400> SEQUENCE: 3  
 41 cgggataccct tcgccttgca gctttgtc  
 43 <210> SEQ ID NO: 4  
 44 <211> LENGTH: 30  
 45 <212> TYPE: DNA  
 46 <213> ORGANISM: Mus musculus  
 47 <400> SEQUENCE: 4

28

## RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:26

Input Set : N:\Crf3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

```

48      cggaattcct agactgatac agtctgtaag                      30
50 <210> SEQ ID NO: 5
51 <211> LENGTH: 30
52 <212> TYPE: DNA
53 <213> ORGANISM: Mus musculus
54 <400> SEQUENCE: 5
55      tatagcggcc gctagactga tacagtctgt                      30
57 <210> SEQ ID NO: 6
58 <211> LENGTH: 32
59 <212> TYPE: DNA
60 <213> ORGANISM: Mus musculus
61 <400> SEQUENCE: 6
62      tcccccgggga tgcccatcc ccgaaggtag ca                    32
64 <210> SEQ ID NO: 7
65 <211> LENGTH: 39
66 <212> TYPE: DNA
67 <213> ORGANISM: Mus musculus
68 <400> SEQUENCE: 7
69      tatagcggcc gctcaccgac tgatatcccg actggagtc           39
71 <210> SEQ ID NO: 8
72 <211> LENGTH: 30
73 <212> TYPE: DNA
74 <213> ORGANISM: Mus musculus
75 <400> SEQUENCE: 8
76      tcccccgggg agacgatgca tcaactgtaag                      30
78 <210> SEQ ID NO: 9
79 <211> LENGTH: 39
80 <212> TYPE: DNA
81 <213> ORGANISM: Mus musculus
82 <400> SEQUENCE: 9
83      tatagcggcc gcgctggcct gcacctgtca tctgctggg           39
85 <210> SEQ ID NO: 10
86 <211> LENGTH: 30
87 <212> TYPE: DNA
88 <213> ORGANISM: Mus musculus
89 <400> SEQUENCE: 10
90      cggaattcat gcggcattcc aaacgaactc                      30
92 <210> SEQ ID NO: 11
93 <211> LENGTH: 39
94 <212> TYPE: DNA
95 <213> ORGANISM: Mus musculus
96 <400> SEQUENCE: 11
97      tatagcggcc gccctgactc ccaactcattt cctttttaa           39
99 <210> SEQ ID NO: 12
100 <211> LENGTH: 36
101 <212> TYPE: DNA
102 <213> ORGANISM: Mus musculus
103 <400> SEQUENCE: 12
104      cggaattccg ccaccatggc ccctatacta gggttat              36

```

## RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:26

Input Set : N:\Crf3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

```

106 <210> SEQ ID NO: 13
107 <211> LENGTH: 36
108 <212> TYPE: DNA
109 <213> ORGANISM: Mus musculus
110 <400> SEQUENCE: 13
111      gccaaagcttg ccaccatggc ccctatacta gggttat      36
113 <210> SEQ ID NO: 14
114 <211> LENGTH: 21
115 <212> TYPE: DNA
116 <213> ORGANISM: Mus musculus
117 <400> SEQUENCE: 14
118      gtagcagtaa gaatagttaa a      21
120 <210> SEQ ID NO: 15
121 <211> LENGTH: 24
122 <212> TYPE: DNA
123 <213> ORGANISM: Mus musculus
124 <400> SEQUENCE: 15
125      gttgccctga ggatcattaa gaat      24
127 <210> SEQ ID NO: 16
128 <211> LENGTH: 24
129 <212> TYPE: DNA
130 <213> ORGANISM: Mus musculus
131 <400> SEQUENCE: 16
132      gttgccctga ggatcatccg gaat      24
134 <210> SEQ ID NO: 17
135 <211> LENGTH: 30
136 <212> TYPE: DNA
137 <213> ORGANISM: Mus musculus
138 <400> SEQUENCE: 17
139      tacaattctc actgctacat gtaagccatc      30
141 <210> SEQ ID NO: 18
142 <211> LENGTH: 7
143 <212> TYPE: PRT
144 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <221> NAME/KEY: misc_feature
147 <222> LOCATION: ()..()
148 <223> OTHER INFORMATION: Synthesized protein kinase
149 <400> SEQUENCE: 18
150      His Arg Asp Leu Ala Ala Arg
151      1          5
153 <210> SEQ ID NO: 19
154 <211> LENGTH: 6
155 <212> TYPE: PRT
156 <213> ORGANISM: Artificial Sequence
157 <220> FEATURE:
158 <221> NAME/KEY: misc_feature
159 <222> LOCATION: ()..()
160 <223> OTHER INFORMATION: Synthesized protein kinase

```

## RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:26

Input Set : N:\Crf3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

```

161 <221> NAME/KEY: misc_feature
162 <222> LOCATION: (2)..(2)
163 <223> OTHER INFORMATION: Xaa at position 2 can be Val or Met
W--> 164 <221> misc_feature
165 <222> LOCATION: (5)..(5)
166 <223> OTHER INFORMATION: Xaa at position 5 can be Tyr or Phe
W--> 167 <400> 19
W--> 168      Asp Xaa Trp Ser Xaa Gly
169          1          5
171 <210> SEQ ID NO: 20
172 <211> LENGTH: 483
173 <212> TYPE: PRT
174 <213> ORGANISM: Mus musculus
175 <400> SEQUENCE: 20
176      Met Arg His Ser Lys Arg Thr Tyr Cys Pro Asp Trp Asp Glu Arg Asp
177          1          5          10          15
178      Trp Asp Tyr Gly Thr Trp Arg Ser Ser Ser His Lys Arg Lys Lys
179          20          25          30
180      Arg Ser His Ser Ser Ala Arg Glu Gln Lys Arg Cys Arg Tyr Asp His
181          35          40          45
182      Ser Lys Thr Thr Asp Ser Tyr Tyr Leu Glu Ser Arg Ser Ile Asn Glu
183          50          55          60
184      Lys Ala Tyr His Ser Arg Arg Tyr Val Asp Glu Tyr Arg Asn Asp Tyr
185          65          70          75          80
186      Met Gly Tyr Glu Pro Gly His Pro Tyr Gly Glu Pro Gly Ser Arg Tyr
187          85          90          95
188      Gln Met His Ser Ser Lys Ser Ser Gly Arg Ser Gly Arg Ser Ser Tyr
189          100          105          110
190      Lys Ser Lys His Arg Ser Arg His His Thr Ser Gln His His Ser His
191          115          120          125
192      Gly Lys Ser His Arg Arg Lys Arg Ser Arg Ser Val Glu Asp Asp Glu
193          130          135          140
194      Glu Gly His Leu Ile Cys Gln Ser Gly Asp Val Leu Ser Ala Arg Tyr
195          145          150          155          160
196      Glu Ile Val Asp Thr Leu Gly Glu Gly Ala Phe Gly Lys Val Val Glu
197          165          170          175
198      Cys Ile Asp His Lys Val Gly Gly Arg Arg Val Ala Val Lys Ile Val
199          180          185          190
200      Lys Asn Val Asp Arg Tyr Cys Glu Ala Ala Gln Ser Glu Ile Gln Val
201          195          200          205
202      Leu Glu His Leu Asn Thr Thr Asp Pro His Ser Thr Phe Arg Cys Val
203          210          215          220
204      Gln Met Leu Glu Trp Phe Glu His Arg Gly His Ile Cys Ile Val Phe
205          225          230          235          240
206      Glu Leu Leu Gly Leu Ser Thr Tyr Asp Phe Ile Lys Glu Asn Ser Phe
207          245          250          255
208      Leu Pro Phe Arg Met Asp His Ile Arg Lys Met Ala Tyr Gln Ile Cys
209          260          265          270
210      Lys Ser Val Asn Phe Leu His Ser Met Lys Leu Thr His Thr Asp Leu

```

## RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:26

Input Set : N:\Crif3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

```

211          275          280          285
212  Lys Pro Glu Asn Ile Leu Phe Val Lys Ser Asp Tyr Thr Glu Ala Tyr
213          290          295          300
214  Asn Pro Lys Met Lys Arg Asp Glu Arg Thr Ile Val Asn Pro Asp Ile
215  305          310          315          320
216  Lys Val Val Asp Phe Gly Ser Ala Thr Tyr Asp Asp Glu His His Ser
217          325          330          335
218  Thr Leu Val Ser Thr Arg His Tyr Arg Ala Pro Glu Val Ile Leu Ala
219          340          345          350
220  Leu Gly Trp Ser Gln Pro Cys Asp Val Trp Ser Ile Gly Cys Ile Leu
221          355          360          365
222  Ile Glu Tyr Tyr Leu Gly Phe Thr Val Phe Pro Thr His Asp Ser Arg
223          370          375          380
224  Glu His Leu Ala Met Met Glu Arg Ile Leu Gly Pro Leu Pro Lys His
225  385          390          395          400
226  Met Ile Gln Lys Thr Arg Lys Arg Arg Tyr Phe His His Asp Arg Leu
227          405          410          415
228  Asp Trp Asp Glu His Ser Ser Ala Gly Arg Tyr Val Ser Arg Arg Cys
229          420          425          430
230  Lys Pro Leu Lys Glu Phe Met Leu Ser Gln Asp Ala Glu His Glu Phe
231          435          440          445
232  Leu Phe Asp Leu Val Gly Lys Ile Leu Glu Tyr Asp Pro Ala Lys Arg
233          450          455          460
234  Ile Thr Leu Lys Glu Ala Leu Lys His Pro Phe Phe Tyr Pro Leu Lys
235  465          470          475          480
236  Lys His Thr
238 <210> SEQ ID NO: 21
239 <211> LENGTH: 499
240 <212> TYPE: PRT
241 <213> ORGANISM: Mus musculus
242 <400> SEQUENCE: 21
243  Met Pro His Pro Arg Arg Tyr His Ser Ser Glu Arg Gly Ser Arg Gly
244  1          5          10          15
245  Ser Tyr His Glu His Tyr Gln Ser Arg Lys His Lys Arg Arg Arg Ser
246          20          25          30
247  Arg Ser Trp Ser Ser Ser Ser Asp Arg Thr Arg Arg Arg Arg Arg Glu
248          35          40          45
249  Asp Ser Tyr His Val Arg Ser Arg Ser Ser Tyr Asp Asp His Ser Ser
250          50          55          60
251  Asp Arg Arg Leu Tyr Asp Arg Arg Tyr Cys Gly Ser Tyr Arg Arg Asn
252          65          70          75          80
253  Asp Tyr Ser Arg Asp Arg Gly Glu Ala Tyr Tyr Asp Thr Asp Phe Arg
254          85          90          95
255  Gln Ser Tyr Glu Tyr His Arg Glu Asn Ser Ser Tyr Arg Ser Gln Arg
256          100          105          110
257  Ser Ser Arg Arg Lys His Arg Arg Arg Arg Arg Ser Arg Thr Phe
258          115          120          125
259  Ser Arg Ser Ser Ser His Ser Ser Arg Arg Ala Lys Ser Val Glu Asp
260          130          135          140

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/825,177

DATE: 09/01/2004  
TIME: 13:05:27

Input Set : N:\Crf3\RULE60\10825177.raw  
Output Set: N:\CRF4\09012004\J825177.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:19; Xaa Pos. 2,5

VERIFICATION SUMMARY

DATE: 09/01/2004

PATENT APPLICATION: US/10/825,177

TIME: 13:05:27

Input Set : N:\Crf3\RULE60\10825177.raw

Output Set: N:\CRF4\09012004\J825177.raw

:164 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:19

:167 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:19

:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0